

# Guidelines for Calculating Emissions from Dairy and Poultry Operations

The dairy and poultry farms are required to report to the District their emissions of Particulate Matter (PM), Volatile Organic Compounds (VOC), and Ammonia (NH<sub>3</sub>) that resulted from handling of livestock wastes. For poultry operations, there are also PM emissions from the feeds.

## 1. PROCEDURES

Facilities can estimate their VOC, PM, and NH<sub>3</sub> emissions using equation:

$$E = Q * EF * (1 - CE)$$

Where,

E = VOC, PM or NH<sub>3</sub> emissions expressed in pounds per year (lb/yr)

Q = Throughput is the number of animals per year for each animal category. For poultry farms, the throughput is also expressed in tons of birds feed when estimating the PM emissions from the bird feed.

EF = Uncontrolled emission factors from Table 1 based on the types of animals and materials.

CE = Control effectiveness listed in Table 2 based on the types of manure disposal practices.

**Table 1: Uncontrolled Emission Factors**

Animals/Operations	VOC, lbs/head	PM		NH <sub>3</sub> lbs/head
		Lb/head	Lb/ton	
Dairy Farms:				
Milking Cows	12.8	3.56	---	51
Dry Cows	8.7	3.56	---	51
Heifers (4-24 months)	6.1	3.56	---	18.7
Heifers (4-24 months)*	4.4	3.56	---	18.7
Calf (under 3 months)	4.5	3.56	---	7.5
Mature Cows*	6.3	3.56	---	51
Poultry Farms				
Manure	0.02565	0.0616	---	0.096
Feeds	---	---	0.108	---

\*Emission factors for dairy operations with flush lanes that are flushed with water to a holding pond.

- *Milking cow is a cow raised to produce milk*
- *Dry cow is a cow of approximately 2 weeks from calving and in between lactation, hence, is not giving milk and is usually kept separately for different feeding.*
- *Heifer is a young female calf under 3 years old and has not borne a calf*
- *Calf is a young cow or bull in its first year*
- *Mature cow is a cow that has had one or two calves and which may be more than 3 years old.*

**Table 2- Control Effectiveness**

<b>Type of Disposal</b>	<b>(VOC &amp; NH<sub>3</sub>) Control Effectiveness</b>	<b>(PM) Control Effectiveness</b>
No Disposal	---	---
Best Management Practices	---	0.20
Manure Sent out of Basin	0.50	---
Composting (open window)	0.385	---
Composting (enclosed)	0.475	---
Digester (plug & complete mix)	1	---
Land Application	0.115	---

- *Best Management Practices are Class One Mitigation Measures defined in Rule 223, Appendix A, Table 1, subsections E & F, and Table 2, subsections C & D.*
- *Land Application is the use of methods such as tilling, injecting, or plowing that covers animal waste in accordance with NRCS Agricultural Waste Management Field Handbook Chapter 10, Section 651.1102.*

## **2. HOW TO REPORT**

VOC, PM, NH<sub>3</sub> emissions must be reported separately for each animal category (i.e., birds, milking cows, dry cows, heifers, etc). This could be done through the following steps:

1. Determine the annual average number of animals, (Throughput, Q):
  - For a dairy farm, take the annual average number of animals for each annual category from the annual report submitted to the Santa Ana Regional Water Quality Control Board (SARWQCB).

- For a poultry farm, take the annual average number of birds using your annual recordkeeping report. In addition, the total amount of bird feed used for the same time period are also needed.
2. Select proper emission factors listed in Table 1, (EF):
  - Note that the VOC emission factors are different based on the animal category (e.g., milking cows versus dry cows) and whether the dairy farm has lanes that are flushed with water to a holding pond.
  - Note that the PM emission factors are different based on source of emissions (bird's manure or feed). There are no VOC or NH<sub>3</sub> emissions associated with the bird feed.
3. Select appropriate control effectiveness (CE) from Table 2 based on the type of emissions (i.e., VOC, PM, or NH<sub>3</sub>) and manure handling method.
4. Enter the information into the AER Reporting Tool.

### EXAMPLE 1:

Last year, a dairy farm facility has reported to the Santa Ana Regional Water Quality Control Board about 900 milking cows, 300 heifers (17-14 months), and no calf. The manures are sent out of the basin. This dairy does not have any lanes that are flushed with water to a pond.

### STEPS TO REPORT THE EMISSIONS

**Image 1:** Click **Emission Sources (ES)**. The display will show existing permitted equipment/processes in the tabulated form (example, A/N 111111). Since livestock waste handling is not permitted source, it must be added to the list by clicking **Add New Emission Source** (in blue font).

AER Home Access Facility Facility Home

Facility ID: 999115 Facility ID: 999115 - ABC - Reporting period: 2012

Facility Information

Build Reporting Structure

Combustion Fuels

**Emission Sources (ES)**

Report Process/Emissions

Summaries

Data Validation

Print Facility Report

Report Submission

User provided emission source has been deleted.

### Build Reporting Structure

#### Emission Sources (ES) Classification

This section contains facility permit profile. Please make sure that every device has a specified Emission Source (ES). New emission sources can also be added.

EPA TANKS Software DATA IMPORT - [Click here](#) for more instructions.

Displaying 1 emission sources.

A/N  Permit NO

AER Device ID  Permit Device ID

[Search Emission Sources](#)

[Add New Emission Source](#)

Search:  [Print Preview](#)

Action	A/N	Permit NO	Permit Device ID	Permit Equipment Description	AER Device ID	ES Name	Source Group	Has Emissions	Equipment	ES Status	Process Reference
<a href="#">Open</a>	111111	121212	D1		ES4	Dairy	Other Processes	Y	Other process equipment	Work in progress	<a href="#">Reference</a>

Showing 1 to 1 of 1 entries

[Previous](#) [Next](#)

[AQMD web site Home](#) | [AER Web Site](#) | [Submit question/comment](#) | [Ecotek Web Site](#) | [Desktop](#)

**Image 2:** Fill out relevant information to the added Emission Source by identifying ES Name (example, Animal Waste Handling) and selecting the Operating ES Status (i.e., Normal Operation) from drop-down menu. After selecting the appropriate Operating ES Status, the **Determine Emission Source Group Type** button will pop-out. Click this button to determine the Group for the added emission source.

AER Home Access Facility Facility Home

Facility ID: 999115 • ABC • Reporting period: 2012

Facility ID: 999115

**Facility Information**

**Build Reporting Structure**

Combustion Fuels

Emission Sources (ES)

**Report Process/Emissions**

**Summaries**

**Data Validation**

**Print Facility Report**

**Report Submission**

**Edit Emission Source**

Providing correct information and proper selection categories would help to classify emission source.

Permitted	<input type="checkbox"/>
A/N	
Permit No	
Permit Device ID	
Permit Equipment Description	
AER Device ID	E55
ES Name	Animals Waste Handling
Operating ES Status	Normal Operation
Comment	
Emission Source Group	Other Processes <b>Determine Emission Source Group Type</b>
Equipment	Other process equipment
Design Capacity	

?

Save and return to List of Emission Sources or Save and proceed to Process Reporting or Cancel

Optional: Save and Mark as Completed Click here to [delete](#) this emission source and associated data.

**Image 3:** Select No. 7 and click “**click here** (blue font)” to mark Other Process Equipment. Click the box designated as Other process equipment, and click **Save** button.

**Determine Emission Source Group Type**

Permitted	A/N	Permit No	Permit Device ID	Permit Equipment Description	AER Device ID	ES Name
No						Animals

- External Combustion Equipment (e.g., boiler, dryer, oven, furnace, heater, afterburner, flare, kiln or incinerator) [click here](#) to select one the following Equipment:
- Internal Combustion Equipment (e.g., internal combustion engine (excluding vehicles), turbine or micro turbine) [click here](#) to select one of the following Equipment:
- Spray Coating/Spray Booth (e.g., coatings, solvents, adhesives, etc.) [click here](#) to select one of the following Equipment:
- Other Use of Organics (e.g., coatings, solvents, inks, adhesives, etc.) except in Spray Coating/Spray Booth, [click here](#) to select one of the following Equipment:
- Storage Tank (e.g. Underground, Aboveground, Small Tanks, Dispensing Systems) [click here](#) to select one of the following Equipment:
- Fugitive Components (Emission Leaks from Process Components per Rule 1173 and 1176), [click here](#) to select all applicable Equipment:
- Other Processes (does not fit in any of the groups mentioned above), click [click here](#) to mark "Other Process Equipment":
  - ☒ Other process equipment

Save Cancel

After saving, the program reverts to Image 2. Click **Save and proceed to Process Reporting** button to start reporting emissions for the added Process.

**Image 4:** The new Process added is shown as P1 (process 1). Click the box indicating P1 to begin entering information, such as, process throughputs, emissions and emission factors, and TACs.

Process References									
A/N	Permit NO	Permit Device ID	Permit Device Description	AER Device ID	ES Name	Source Group	Emissions?	Equipment	ES Status
				ES5	Animals	Other Processes	Y	Other process equipment	Work in progress

  

Process ID	Source Group	Process Name	Process Status	Operation Type
P1	Other Process Emissions		Work in progress	routine

[Add Process](#)

[OK](#)

**Image 5:** Open the **Process** section (by clicking the blue font **Open**) to identify the Name, Activity Code, and select the appropriate Sector, Industry, Operation, Process, and applicable Rule by clicking the Drop-down arrow at the corner of each box.

Facility ID: 999115

« Back to Emission Source Process Reference

**Other Processes**

This reporting screen is for reporting activity data for other processes used in your facility which were not covered in previous reporting screens. Please provide specific information for every associated emission source. **You must select Activity and throughput units before reporting emissions.** If the operation of such sources involves burning fuels, make sure emissions generated from burning fuels are reported separately. Combined emissions can also be reported here; however, it must be substantiated to avoid double reporting. Detailed instructions are available by clicking on Help icon in the tool bar.

Facility ID: 999115 • ABC • Reporting period: 2012

**Facility Information**

**Build Reporting Structure**

Combustion Fuels

Emission Sources (ES)

**Report Process/Emissions**

Combustion

External Combustion

Internal Combustion

Use of organics

Spray Coating/Spray Booth

Other Use of Organics

Storage Tanks

Fugitive Components

**Other Processes**

Process Upset

**Summaries**

**Data Validation**

**Print Facility Report**

**Report Submission**

**Process** Optional: Mark as Completed

	AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity
<a href="#">Open</a>	ES5			P1		

Click here to [delete](#) this process.

**Throughput**

	Annual Throughput
<a href="#">Open</a>	

**Criteria Emissions (lbs)**

	Pollutant	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
<a href="#">Add New</a>							

**Toxic (TAC/ODC) Emissions (lbs)**

	TAC/ODC Group	CAS #	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
<a href="#">Add New</a>								

« Back to Emission Source Process Reference

**Image 6:** After clicking Open, this image will pop-out. Identify the Process Name for the first process P1 and fill out the Activity Code by selecting the appropriate information from the drop-down menu from each box. Example shows correct sector, industry, operation, process, and rule for the milking cows. Click **Save** button.

Facility ID: 999115, ABC, Reporting period: 2012

**Edit Emission Process - Other Processes**

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity
ES5			P1	1127	Manufacturing : Food and Agricultural : Dairy : Milking Cows

AER Device ID: ES5 AER Device Name: Animals Waste Handling  
**NON-PERMITTED** Permit Device ID:  
 Process ID: P1 Process Name:   
 Process Comment:   
 Activity Code \*  
 Sector:   
 Industry:   
 Operation:   
 Process:   
 Rule #:  \* [Add Rule](#)

**Save** **Cancel**

**Image 7:** After saved, the program returns to Image 5. This time, open the **Throughput** section (see Image 5) to enter the Annual Throughput, Type, Comment, for the Process, as shown below. Click **Save** button.

**Edit Throughput Information - Other Processes**

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity
ES5			P1	1127	Manufacturing : Food and Agricultural : Dairy : Milking Cows

**Annual Throughput**

Annual Throughput:  \*  \*  
 Throughput Type:  \*  
 Throughput Comment:

**Save** **Cancel**

**Image 8:** After saving, the program returns to Image 5. Add the Criteria Emissions involved in the Process by clicking “Add New” (yellow button)”under **Criteria Emissions** section.

Facility ID: 999115

**Facility Information**

**Build Reporting Structure**

Combustion Fuels

Emission Sources (ES)

**Report Process/Emissions**

Combustion

External Combustion

Internal Combustion

Use of organics

Spray Coating/Spray Booth

Other Use of Organics

Storage Tanks

Fugitive Components

**Other Processes**

Process Upset

**Summaries**

**Data Validation**

**Print Facility Report**

**Report Submission**

Facility ID: 999115 • ABC • Reporting period: 2012

[« Back to Emission Source Process Reference](#)

### Other Processes

This reporting screen is for reporting activity data for other processes used in your facility which were not covered in previous reporting screens. Please provide specific information for every associated emission source. **You must select Activity and throughput units before reporting emissions.** If the operation of such sources involves burning fuels, make sure emissions generated from burning fuels are reported separately. Combined emissions can also be reported here; however, it must be substantiated to avoid double reporting. Detailed instructions are available by clicking on Help icon in the tool bar.

**Process**

	AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity
<a href="#">Open</a>	ES5			P1	1127	Manufacturing : Food and Agricultural : Dairy : Milking Cows

Optional: Mark as Completed

Click here to [delete](#) this process.

**Throughput**

Annual Throughput	
<a href="#">Open</a>	900.0 head

**Criteria Emissions (lbs)**

	Pollutant	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
<a href="#">Add New</a>							

**Toxic (TAC/ODC) Emissions (lbs)**

	TAC/ODC Group	CAS #	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
<a href="#">Add New</a>								

**Image 9:** Select the type of pollutant, (i.e., VOC, etc.) from drop-down menu, enter the applicable emission factor (from Table 1), control efficiency (from Table 2), emission factor comment and its source for the Process. Click **Save** button.

AER Home Access Facility Facility Home

Facility ID: 999115

**Facility Information**

**Build Reporting Structure**

Combustion Fuels

Emission Sources (ES)

**Report Process/Emissions**

Combustion

External Combustion

Internal Combustion

Use of organics

Spray Coating/Spray Booth

Other Use of Organics

Storage Tanks

Fugitive Components

**Other Processes**

Process Upset

**Summaries**

**Data Validation**

Facility ID: 999115 • ABC • Reporting period: 2012

[« Back to Emission Source Process Reference](#)

### Other Processes

**Open Criteria Emission Information - Other Processes**

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity
ES5			P1	1127	Manufacturing : Food and Agricultural : Dairy : Milking Cows

**Annual Throughput**

900.0 head

**Pollutant** VOC - Volatile Organic Compounds

**Emission Factor (EF)**  \* lbs/head

☐ Controlled EF value  
(mark checkbox if EF listed represents EF determined after control)

**Overall Control Efficiency**

**Emission Factor Comment**

**Emission Factor Data Source**  \*

**Emissions** 5,760.00 lbs

Click here to [delete](#) this Emission.

[Save](#)
[Cancel](#)

**Image 10:** After saved, program reverts to Image 5. To add the next pollutant PM for the same Process P1, click the **Add New** button under **Criteria Emissions** section, Select the type of pollutant, (PM) from drop-down menu, enter the applicable emission factor (from Table 1), control efficiency (from Table 2), emission factor comment and its source and enter them at appropriate boxes. Click **Save** button.

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity
ES5			P1	1127	Manufacturing : Food and Agricultural : Dairy : Milking Cows

**Annual Throughput**  
900.0 head

Pollutant: PM \*

Emission Factor (EF): 3.5600 \* lbs/head

☐ Controlled EF value  
(mark checkbox if EF listed represents EF determined after control)

Overall Control Efficiency:

Emission Factor Comment:

Emission Factor Data Source: AQMD default \*

Emissions: 3,204.00 lbs

Save Cancel

## STEPS TO REPORT NH<sub>3</sub> (TAC/ODC)

**Image 11:** After saved, the program reverts to Image 5. To add TAC/ODC emissions from the same Process P1, click the **Add Toxic (TAC/ODC) Emissions** under **Toxic Emissions** section (NH<sub>3</sub> emissions in this example). Select NH<sub>3</sub> (Ammonia) from drop-down menu and select applicable Emission Factor (from Table 1) and Control Efficiency (from Table 2) and enter them at appropriate boxes. Click **Save** button.

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity
ES5			P1	1127	Manufacturing : Food and Agricultural : Dairy : Milking Cows

**Annual Throughput**  
900.0 head

TAC/ODC Toxic Pollutants / Ozone Depleting Compounds

Pollutant: 32 - Ammonia \*

TAC Group: 32 - Ammonia

CAS # (Pollutant): 7664417 - Ammonia

Emission Factor (EF): 5.10000e+1 \* lbs/head

☐ Controlled EF value  
(mark checkbox if EF listed represents EF determined after control)

Overall Control Efficiency: 0.11500

Emission Factor Comment: Control Effectiveness for Land Application

Emission Factor Data Source: AQMD default \*

Emissions: 4.062e+4 lbs

Save Cancel



After saved, the program reverts to Image 5. **The emissions from the 900 Milking Cows had been reported.**

**Image 12:** To complete the emissions reporting for the 900 Milking Cows, click the **Optional: Mark as Complete** button (gray color), as shown below. A confirmation window will pop-out and click OK to complete reporting the emissions for the process.

Facility ID: 999115

« Back to Emission Source Process Reference

**Other Processes**

This reporting screen is for reporting activity data for other processes used in your facility which were not covered in previous reporting screens. Please provide specific information for every associated emission source. **You must select Activity and throughput units before reporting emissions.** If the operation of such sources involves burning fuels, make sure emissions generated from burning fuels are reported separately. Combined emissions can also be reported here; however, it must be substantiated to avoid double reporting. Detailed instructions are available by clicking on Help icon in the tool bar.

**Process**

Optional: Mark as Completed

	AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity
<a href="#">Open</a>	ES5			P1	1127	Manufacturing : Food and Agricultural : Dairy : Milking Cows

Click here to [delete](#) this process.

**Throughput**

	Annual Throughput
<a href="#">Open</a>	900.0 head

**Criteria Emissions (lbs)**

	Pollutant	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
<a href="#">Open</a>	VOC	12.8000	lbs / head	No	AQMD default	0.50000	5,760.00
<a href="#">Open</a>	PM	3.5600	lbs / head	No	AQMD default		3,204.00

[Add New](#)

**Toxic (TAC/ODC) Emissions (lbs)**

	TAC/ODC Group	CAS #	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions
<a href="#">Open</a>	Ammonia	7664417	5.10000e+1	lbs / head	No	AQMD default	0.11500	4.062e+4

[Add New](#)

## STEPS TO REPORT THE NEXT PROCESS

**Image 13:**

1. To add the next Process, (Heifers), click **Add Process** button as shown below.
2. Name the Process (i.e. Heifers) in the box and click OK button next to it.

Facility ID: 999115

Build Reporting Structure

Emission Sources (ES) Classification

This section contains facility permit profile. Please make sure that every device has a specified Emission Source (ES). New emission sources can also be added.

EPA TANKS Software DATA IMPORT - [Click here](#) for more instructions.

**Process References**

A/N	Permit NO	Permit Device ID	Permit Device Description	AER Device ID	ES Name	Source Group	Emissions?	Equipment	ES Status
				ES5	Animals Waste Handling	Other Processes	Y	Other process equipment	Work in progress

Process ID	Source Group	Process Name	Process Status	Operation Type
P1	Other Process Emissions	Milking Cows	Completed	routine

[Add Process](#)

Other Process Emissions Process name:  [OK](#)

[OK](#)

## REMINDER:

To report the VOC, PM, and NH<sub>3</sub> emissions from the 300 Heifers, repeat the procedures as illustrated in Image 5 and follow the steps leading to Image 13.

The screenshot shows the 'Build Reporting Structure' window for Facility ID: 999115. The 'Process References' table is displayed with the following data:

A/N	Permit NO	Permit Device ID	Permit Device Description	AER Device ID	ES Name	Source Group	Emissions?	Equipment	ES Status
				ES5	Animals Waste Handling	Other Processes	Y	Other process equipment	Work in progress

  

Process ID	Source Group	Process Name	Process Status	Operation Type
P1	Other Process Emissions	Milking Cows	Completed	routine
P2	Other Process Emissions	Heifer	Work in progress	routine

Buttons: Add Process, OK

## EXAMPLE 2:

Last year, a poultry farm facility has reported to the Santa Ana Regional Water Quality Control Board about 5,000 chickens and 100 tons of consumed feed. The manures are sent out of the basin. This poultry does not have any lanes that are flushed with water to a pond.

Follow procedure illustrated in Images 1-5 of Example 1 and fill in the information for Chicken Farm as shown in the following image. Click **Save** button.

The screenshot shows the 'Edit Emission Process - Other Processes' window for Facility ID: 999115. The 'Other Processes' section is active. The 'AER Device ID' is ES6, and the 'Process ID' is P1. The 'Activity' is 'Chicken Manure'. The 'Process Comment' is 'Waste handling'. The 'Activity Code' is 'Sector: Manufacturing', 'Industry: Food and Agricultural', 'Operation: Poultry', and 'Process: Manure Handling'. The 'Rule #' is 1127. Buttons: Save, Cancel.

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity
ES6			P1		

  

AER Device ID	Permit Device ID	AER Device Name
ES6	P1	Chicken Farm

  

Process ID	Process Name
P1	Chicken Manure

  

Process Comment: Waste handling

Activity Code \* Sector: Manufacturing  
Industry: Food and Agricultural  
Operation: Poultry  
Process: Manure Handling

Rule #: 1127 \* Add Rule

Buttons: Save, Cancel

After saved, program will revert to Image 5. Open the **Throughput** section to enter the amount, as shown below. Click **Save** button.

AER Home Access Facility Facility Home

Facility ID: 999115 - ABC - Reporting period: 2012

Facility ID: 999115

« Back to Emission Source Process Reference

### Other Processes

This reporting screen is for reporting activity data for other processes used in your facility which were not covered in previous reporting screens. Please provide specific information for every associated emission source. **You must select Activity and throughput units before reporting emissions.** If the operation of such sources involves burning fuels, make sure emissions generated from burning fuels are reported separately. Combined emissions can also be reported here; however, it must be substantiated.

**Edit Throughput Information - Other Processes**

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity
ES6			P1	1127	Manufacturing : Food and Agricultural : Poultry : Manure Handling

**Annual Throughput**

Annual Throughput: 5000 \* head \*

Throughput Type: Existing \*

Throughput Comment: as reported to SARWQCBoard

Save Cancel

After saved, program will revert to Image 5. Open the **Criteria Emissions** section (by clicking **Add New**) to enter the criteria pollutant (i.e., VOC) and its emission factor information, as shown below. Click **Save** button.

**Report Process/Emissions**

**Open Criteria Emission Information - Other Processes**

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity
ES6			P1	1127	Manufacturing : Food and Agricultural : Poultry : Manure Handling

**Annual Throughput**  
5,000.0 head

Pollutant: VOC \*

Emission Factor (EF): 0.0257 \* lbs/head

☐ Controlled EF value  
(mark checkbox if EF listed represents EF determined after control)

Overall Control Efficiency: 0.50000

Emission Factor Comment: from Tables 1 and 2 of Guidelines for Dairy and Poultry Operations

Emission Factor Data Source: AQMD default \*

Emissions: 64.25 lbs

Save Cancel

TAC/ODC Group	CAS #	EF	Unit	Controlled EF	EF Data Source	Overall CE	Emissions

After saved, program will revert to Image 5. Open the **Criteria Emissions** section again by clicking **Add New** to enter the next criteria pollutant (i.e. PM) and its emission factor information, as shown below. Click **Save** button.

**Open Criteria Emission Information - Other Processes**

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity
ES6			P1	1127	Manufacturing : Food and Agricultural : Poultry : Manure Handling

**Annual Throughput**  
5,000.0 head

Pollutant: PM \*

Emission Factor (EF): 0.0616 \* lbs/head

☐ Controlled EF value  
(mark checkbox if EF listed represents EF determined after control)

Overall Control Efficiency:

Emission Factor Comment: from Table 1 of the Guidelines for Dairy & Poultry Operations

Emission Factor Data Source: AQMD default \*

Emissions: 308.00 lbs

Save Cancel

After saved, program will revert to Image 5. Open the **Toxic Emissions** section by clicking **Add New** to enter the TAC/ODC (i.e. NH<sub>3</sub>) and its emission factor information, as shown below. Click **Save** button.

**Open Toxic (TAC/ODC) Emission Information - Other Processes**

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity
ES6			P1	1127	Manufacturing : Food and Agricultural : Poultry : Manure Handling

**Annual Throughput**  
5,000.0 head

TAC/ODC Toxic Pollutants / Ozone Depleting Compounds

Pollutant: 32 - Ammonia \*

TAC Group: 32 - Ammonia

CAS # (Pollutant): 7664417 - Ammonia

Emission Factor (EF): 9.60000e-2 \* lbs/head

☐ Controlled EF value  
(mark checkbox if EF listed represents EF determined after control)

Overall Control Efficiency: 0.50000

Emission Factor Comment: from Tables 1 & 2 of Guidelines for Dairy & Poultry Operations

Emission Factor Data Source: AQMD default \*

Emissions: 2.400e+2 lbs

Save Cancel

The following images will illustrate the reporting of emissions from handling of chicken feeds. After saved, the program reverts to Image 8 and click **Back to Emission Source Process Reference**.

AER Home Access Facility Facility Home

Facility ID: 999115 • ABC • Reporting period: 2012

Facility ID: 999115

Form data is successfully saved.

Facility Information

Build Reporting Structure

Process References

A/N	Permit NO	Permit Device ID	Permit Device Description	AER Device ID	ES Name	Source Group	Emissions?	Equipment	ES Status
				ES6	Chicken Farm	Other Processes	Y	Other process equipment	Work in progress

Process ID	Source Group	Process Name	Process Status	Operation Type
P1	Other Process Emissions	Chicken Manure	Work in progress	routine

Add Process

Other Process Emissions Process name: Chicken Feed OK

OK

Search Emission Sources

After clicking OK, this image will pop-out. You can start entering the information for Process P2.

Facility ID: 999115 • ABC • Reporting period: 2012

Facility ID: 999115

Build Reporting Structure

Emission Sources (ES) Classification

This section contains facility permit profile. Please make sure that every device has a specified Emission Source (ES). New emission sources can also be added.

Facility Information

Build Reporting Structure

Combustion Fuels

Emission Sources (ES)

Process References

A/N	Permit NO	Permit Device ID	Permit Device Description	AER Device ID	ES Name	Source Group	Emissions?	Equipment	ES Status
				ES6	Chicken Farm	Other Processes	Y	Other process equipment	Work in progress

Process ID	Source Group	Process Name	Process Status	Operation Type
P1	Other Process Emissions	Chicken Manure	Work in progress	routine
P2	Other Process Emissions	Chicken Feed	Work in progress	routine

Add Process

OK

After clicking P2, the following image will pop-out. Identify the Process Name, Activity Code, and select the appropriate Sector, Industry, Operation, Process, and applicable Rule by clicking the Drop-down arrow at the corner of each box. Click **Save** button

AER Home Access Facility Facility Home

Facility ID: 999115 - ABC - Reporting period: 2012

Facility ID: 999115

Facility Information

Build Reporting Structure

Combustion Fuels

Emission Sources (E)

Report Process/Emission

Combustion

External Combustion

Internal Combustion

Use of organics

Spray Coating/Spray Booth

Other Use of Organics

Storage Tanks

Fugitive Components

Other Processes

Criteria Emissions (lbs)

**Edit Emission Process - Other Processes**

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity
ES6			P2		

AER Device ID: ES6 AER Device Name: Chicken Farm

Permit Device ID: NON-PERMITTED

Process ID: P2 Process Name: Chicken Feed

Process Comment: Consumed Feed

Activity Code \* Sector: Manufacturing

Industry: Food and Agricultural

Operation: Poultry

Process: Feed Operation

Rule #: 1127 \* Add Rule

Save Cancel

After saved, the program reverts to Image 5. Open the **Throughput** section to enter the amount, as shown below. Click **Save** button.

AER Home Access Facility Facility Home

Facility ID: 999115 - ABC - Reporting period: 2012

Facility ID: 999115

Facility Information

Build Reporting Structure

Combustion Fuels

Emission Sources (E)

Report Process/Emission

Combustion

External Combustion

Internal Combustion

Use of organics

Spray Coating/Spray Booth

Other Use of Organics

Other Processes

Criteria Emissions (lbs)

« Back to Emission Source Process Reference

**Other Processes**

This reporting screen is for reporting activity data for other processes used in your facility which were associated with the facility which were not associated with any associated emissions. If the facility is burning fuels are not substantiated in the tool bar.

Mark as Completed

Rule # Activity

delete this process.

**Edit Throughput Information - Other Processes**

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity
ES6			P2	1127	Manufacturing : Food and Agricultural : Poultry : Feed Operation

**Annual Throughput**

Annual Throughput: 100 \* tons \*

Throughput Type: Input \*

Throughput Comment: based on Purchased Amount

Save Cancel

After saved, program will revert to Image 5. Open the **Criteria Emissions** section (by clicking **Add New**) to enter the criteria pollutant (i.e., PM) and its emission factor information, as shown below. Click **Save** button.

Reported separately, combined emissions can also be reported using this entry to make it easier to avoid double reporting. Detailed instructions are available by clicking on Help icon in the tool bar.

**Report Process/Emissions**

Combustion  
External  
Internal  
Use of organ  
Spray Coat  
Booth  
Other Use  
Storage Tan  
Fugitive Co  
**Other Process**  
Process Up  
**Summaries**  
**Data Validation**  
**Print Facility**  
**Report Submit**

**Open Criteria Emission Information - Other Processes** ✕

AER Device ID	Permit Device ID	A/N	Process ID	Rule #	Activity
ES6			P2	1127	Manufacturing : Food and Agricultural : Poultry : Feed Operation

**Annual Throughput**  
100.0 tons

Pollutant: PM ▼ \*

Emission Factor (EF): 0.1080 \* lbs/tons

☐ Controlled EF value  
(mark checkbox if EF listed represents EF determined after control)

Overall Control Efficiency:

Emission Factor Comment: from Table 1 of Guidelines for Dairy & Poultry Operations

Emission Factor Data Source: AQMD default ▼ \*

Emissions: 10.80 lbs

**Save** **Cancel**

Completed  
y : Feed  
this process.  
Emissions

After saved, the program reverts to Image 5. Emissions from Process P2 are reported. Complete the report by validating the entries.